

Health Education and Blood Pressure and Blood Sugar Checks in RW 4 Jayagiri Village, Lembang, West Bandung

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Abstract

Health is a human right and an investment for successful nation building. For this reason, it is necessary to carry out comprehensive health development in order to realize a healthy society. This service aims to increase public knowledge about the symptoms, complications, and prevention of hypertension and diabetes mellitus. The method carried out in this service is to use the method of health examination and health counseling. The stages of implementation in this service activity are divided into 6 parts, namely: the licensing stage, coordination with cadres and RW leaders, medical examinations, reading results, counseling, and evaluation. Evaluation is carried out by 2 methods, namely the pre-test and post-test methods. The results of counseling and examination can have a positive impact on the community, especially for the health of the elderly. The results of the examination at this community service activity from 47 people found 70% abnormal blood pressure ($> 120/90$ mmHg) and 10.4% abnormal blood sugar (> 200). People whose Blood Pressure and Blood Sugar are not normal are encouraged to carry out further health checks at the Puskesmas. The conclusion obtained from this community service activity is that there was an increase in community knowledge from the sufficient category in the pre-test before 32.4% to 51.4% and a decrease in the knowledge category from less than 40.5% to 24.3%.

A. Introduction

Hypertension is a condition in which systolic blood pressure in a person's body is more than or equal to 140 mmHg and or diastolic blood pressure is more than or equal to 90 mmHg (Ardayani et al., 2023; McEvoy et al., 2020; Permata et al., 2021). As one of the diseases that is dangerous enough to get the nickname The Silent Killer, Hypertension or commonly known as high blood pressure really needs to get the attention of every individual (Purnamasari & Meutia, 2023). This is because hypertension can attack everyone without any signs appearing on the body (Dwi & Netra, 2020; Suprayitno et al., 2019).

Diabetes mellitus is a disease that requires long-term therapy and can cause complications in various organs (Dilworth et al., 2021; Mukhtar et al., 2020; Paul et al., 2020). Diabetes mellitus is a disease characterized by high blood glucose levels because the body cannot release or use insulin closely (Alam et al., 2021; Poznyak et al., 2020; Prabawati et al., 2021). Diabetes mellitus is synonymous with increased blood glucose levels in sufferers (Angriani & Baharuddin, 2020). Patients' glucose levels are known to vary every day, blood sugar levels will increase after eating and return to normal within 2 hours (Bangun et al., 2020). Complications that occur due to DM can be in the form of disorders of blood vessels both max-rovascular and microvascular, as well as disorders of the nervous system or neuropathy (Ansari et al., 2021; Horton &

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Barrett, 2021; Mauricio et al., 2020). Health is a human right and an investment for successful nation building (Apridani et al., 2021).

Based on the results of research from (Febriani & Fitri, 2020) which states that from the data of the elderly who have diabetes mellitus, 15 people (41.7%), while the elderly who do not have diabetes mellitus as many as 21 people (58.3%). From the data of the elderly who have diabetes mellitus, it was found that the elderly with hypertension amounted to 13 people (36.1%). From the data of the elderly who experienced hypertension with diabetes mellitus based on the highest age, the results of the age of Elderly (60-74 years) were obtained as many as 7 people (19.4%). From the data of the elderly who experienced hypertension with diabetes mellitus based on gender, the results were obtained, 3 men (8.3%), while those with hypertension were 10 women (27.8%). So it can be concluded that there is a relationship between blood pressure and glucose levels.

For this reason, it is necessary to carry out comprehensive health development in order to realize a healthy society. The high number of elderly is indicated by the high incidence of non-communicable diseases (NCDs) in a place. So a medical examination is needed in order to detect the disease as early as possible (Jengan et al., 2022; Le et al., 2021; Li et al., 2020). The community service that we will carry out is blood pressure checking, blood glucose and counseling on blood pressure and excess blood sugar levels. Education about diabetes mellitus, hypertension and lifestyle to control blood sugar and blood pressure is one of the important things to do, which aims as a preventive effort against disease and complications (Adeleke & Ayenigbara, 2019; Selano et al., 2020).

The lecturer is a professional educator and also a scientist. Lecturers have several main duties and functions (TU-POKSI) that must be carried out and obeyed, one of which is community service (PP No. 37, 2009). Community service carried out by lecturers aims to empower the community, so that people have the ability to develop themselves. Community service of the Immanuel Bandung Health Institute in 2023 participates in supporting West Java health sector strategy and policy programs, namely through the first strategy by strengthening community empowerment, cooperation and partnership as well as environmental health with the policy direction of strengthening community empowerment, cooperation and partnership and environmental health.

The second strategy is to strengthen health services, prevention, control of communicable and non-communicable diseases, mental disorders and nutritional disorders with the direction of policies for strengthening health services, prevention, control of communicable and non-communicable diseases, mental disorders and community nutrition. The third strategy is to strengthen financing, health resources with the policy direction of strengthening financing and health resources. The fourth strategy is to strengthen management, regulation, health information technology and health development research with the direction of strengthening management policies, regulations, information systems in the health sector and health development research.

Immanuel Health Institute has a community service program organized by lecturers in accordance with the Vision and Mission of the Institute. Through community service, lecturers are expected to be able to apply their knowledge which can be directly benefited by the community. Based on the results of the Self-Awareness Survey (SMD) conducted in Jayagiri Village RW 4, the number of people in RW 4 is 665 people spread across 4 RTs. The average elderly disease suffered in RW 04 is Hypertension 23.6% (157 people), Diabetes mellitus 6% (37 people), others around 74.4% are classified as mild diseases. The number of people who smoke is as many as 300 people (45%). These data show that it is possible that there is a high risk of morbidity in the community.

Based on the data above, we carry out community service activities with a purpose "to increase public knowledge about symptoms, complications, and prevention of hypertension and diabetes mellitus". Through this service, it is hoped that it can realize a healthy, independent, quality and productive society.

B. Research Methods

This community service will be held on September 26, 2023 at Posyandu RW 4, Jayagiri Village, Lembang District, West Bandung Regency. The target audience for this community service activity is the community in RW 4 Jayagiri Village. The people who attended this activity were the elderly totaling 47 people. The method carried out in this service is to use the method of health examination and health counseling.

The stages of implementation in this service activity are divided into 6 parts, namely: the licensing stage, coordination with cadres and RW leaders, medical examinations, reading results, counseling, and

evaluation. This service activity also uses pre-test and post-test methods, where the pre-test and post-test results will be used to evaluate the knowledge of counseling participants.

C. Results and Discussion

This community service activity was carried out by lecturers of the Immanuel Health Institute. This service activity was carried out at Posyandu RW 4, Jayagiri Village, Lembang District, West Bandung Regency on September 26, 2023. RW 4 Jayagiri Village located in Lembang, West Bandung Regency, consists of 4 RTs under the supervision of the Jayagiri Health Center in the health sector, there are several RTs that have many residents with health problems.

In this service activity, participants were given information related to blood pressure, blood sugar levels and health counseling. This activity is expected to increase public knowledge about hypertension and diabetes mellitus. In addition, the activities carried out can increase knowledge about healthy lifestyles to prevent disease. The output obtained from this community service activity is the Journal of Community Service, Health Education and Blood Pressure and Blood Sugar Checks in RW 4 Jayagiri Village, Lembang, West Bandung, Jayagiri Village, Lembang, West Bandung.

The results of counseling and examination can have a positive impact on the community, especially for the health of the elderly. The results of the examination at this community service activity from 47 people found 70% abnormal blood pressure ($> 120/90$ mmHg) and 10.4% abnormal blood sugar (>200). People whose Blood Pressure and Blood Sugar are not normal are encouraged to carry out further health checks at the Puskesmas. The stages of implementing this service activity are:

1. Licensing
Obtain permission to carry out community service activities in RW 4 Jayagiri Village
2. Coordination with cadres and RW leaders
coordination was carried out with health cadres and the head of RW 04 Jayagiri Village to ask about the place of health check activities for the elderly.
3. Health check
The elderly health check carried out includes checking blood pressure and blood glucose levels.
4. Reading of results
The results of the examination are recorded on the result card which is then read one by one to participants about the results of blood pressure, blood glucose levels.
5. Extension Extension
After the process of reading the results continued with the counseling process, namely by providing information about the risk of complications if blood pressure (hypertension) and glucose levels are more than normal with the risk of Diabetes Mellitus. In addition to providing information about the risk of complications at values above normal limits, the elderly are also given information on how to prevent and how to live a healthy life in the hope that it can improve the quality of life of the elderly. If an elderly person with high blood pressure and blood glucose levels is found, it is recommended to do an examination at the puskesmas or doctor.
6. Activity evaluation
Evaluation of the knowledge of counseling participants is carried out through filling out pre-test and post-test questionnaires. The results of the evaluation of community service activities were an increase in community knowledge from the sufficient category in the pre-test by 32.4% to 51.4% and a decrease in the knowledge category from less than 40.5% to 24.3%.

This community service activity is in line with service (Hara et al., 2023) entitled "Health Education and Blood Pressure, Blood Sugar, Cholesterol and Uric Acid Checks in Gks Mauliru Village, East Sumba Regency" which states that the elderly health examination went well, 90% of the elderly carried out examinations and received examinations. Elderly who experience complaints as much as 10% are referred to the Puskesmas for therapy. The community service that we will carry out is Blood pressure Checking, blood glucose and counseling on blood pressure and excess blood sugar levels. In addition, this devotion is also in line with the devotion carried out by (Marbun et al., 2023) entitled "Free Counseling and Health Checks, Blood Pressure, Blood Sugar, Uric Acid, and Cholesterol as a Form of Community Service in Lembah Sari Village" which stated that this service activity made a positive contribution in increasing public awareness of health and providing useful information for health improvement in the region.

Education about diabetes mellitus, hypertension and lifestyle to control blood sugar and blood pressure is one of the important things to do, which aims as a preventive effort against the disease and against complications. Therefore, with this community service activity, it is also possible to be a good example for

other parties, because global health problems are the responsibility of all parties, not only the responsibility of some or certain parties

D. Conclusion

After carrying out community service activities, the results of examinations on this community service activity were obtained from 47 people, there were 70% abnormal blood pressure ($> 120/90$ mmHg) and 10.4% abnormal blood sugar (> 200). Then from the evaluation results which stated that there was an increase in public knowledge from the sufficient category in the pre-test before 32.4% to 51.4% and a decrease in the knowledge category from less than 40.5% to 24.3%.

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